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FINAL SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT
THE PROMENADE AND OAKS PROPOSED
DREDGE AND COMMUNITY WATER-USE FACILITIES AND
NORTHERN GOOSE POND ISLAND RESIDENTIAL DEVELOPMENT
JACKSON COUNTY, ALABAMA

TENNESSEE VALLEY AUTHORITY
LEAD AGENCY

U.S. ARMY CORPS OF ENGINEERS
NASHVILLE DISTRICT, REGULATORY BRANCH
COOPERATING AGENCY

MAY 18, 2007

The Proposed Decision and Need

The Promenade and Oaks Development. On June 21, 2006, Tennessee Valley Authority (TVA) received a Section 26a (of the TVA Act) permit application for a dredge (two areas with a total of 694 cubic yards), two community facilities, a boat ramp, and associated riprap stabilization that would serve the interior lots of the Promenade and Oaks subdivisions on Goose Pond Island on Gunter'sville Reservoir near Scottsboro, Alabama, in Jackson County. The applicant (The Promenade and The Oaks Homeowners' Association Inc.) also submitted a request for a Department of the Army permit pursuant to Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act for the community boat slips and boat ramp.

The proposed Promenade community facilities along Roseberry Creek would include a boat ramp and pier and three dock structures with a total of 40 slips (Dock A – five double slips, Dock B – eight double slips and Dock C – five double slips and four individual slips). (See Appendix A for revised application.) The Oaks community facility would be in Willow Cove opposite Tennessee River Mile (TRM) 380.5R (right bank), and the community facility to serve the Promenade would be in Tobe Hollow Cove opposite Roseberry Creek Mile 1.1R. The proposed Oaks community facilities (22 double slips) would be located along the Tennessee River adjacent to Lots 192, 193, and 194. Lot 193 would serve as a 32-space parking area and access to the Oaks community slips called Dock D.

To provide adequate water depth for the facilities, two areas of dredging are also proposed. The first dredging area, dimensions 45 x 86 x 2 feet with a triangular cross section, would be in the cove on the north end of the island adjacent to the boat ramp in the Promenade. The amount of material to be dredged in this area is approximately 125 cubic yards of bottom substrate. The second dredging area, dimensions approximately 270 x 77 x 3 feet with a triangular cross section, is in Willow Cove on the south end of the subdivision adjacent to the Oaks community dock facility. The volume of material to be dredged is approximately 569 cubic yards. Approximately 400 feet of shoreline would also be armored with riprap to reduce shoreline erosion from operation of the proposed community facilities.

TVA must decide whether to issue the permit for the Promenade and Oaks community facilities, boat ramp and dredge as proposed; to issue a permit with modifications or conditions; or to deny the permit request.

Other Northern Goose Pond Island Development. In addition to the pending Section 26a application for the community facilities described above, TVA has received numerous requests for private water-use facilities associated with subdivision developments on the northern portion of Goose Pond Island (see Figure 1). These include:

- One hundred and seven requests for individual water-use facilities at the Oaks and the Promenade subdivisions on the east side of Goose Pond Island received in early July 2006.
- Twenty-four requests for individual water-use facilities and a request for a four-slip facility at the Lake Pointe Subdivision received on September 8, 2006. The Lake Pointe Subdivision is located at approximately mile 1.5R on Roseberry Creek, opposite TRM 382.5R on Guntersville Reservoir. The four-slip facility would serve four waterfront lots with shallow water on Roseberry Creek. Each individual facility would accommodate two boatslips.
- Approved requests for two community water-use facilities with 25 slips in the Peninsula at Goosepond Subdivision.
- Ten approved requests for individual private water-use facilities located on the western side of Goose Pond Island.
- TVA is currently receiving requests for individual private water-use facilities at the adjacent Strand and Ski Cove subdivisions.

TVA has previously issued Section 26a permits for several individual private water-use facilities at the Peninsula at Goosepond Subdivision. In accordance with its NEPA procedures, TVA categorically excluded these from the preparation of an EA or an Environmental Impact Statement. These are summarized below in the References section.

In April 2004, TVA completed a final environmental assessment (FEA) entitled *City of Scottsboro, Proposed Allocation Change Request, Goose Pond Island, Guntersville Reservoir, Jackson County, Alabama* (hereafter referred to as the 2004 FEA) (see Appendix B). The 2004 FEA assessed the impacts of a proposed land allocation change to TVA lands designated as Tracts XGR-108PT, XGR-109PT, and XGR-110PT in the TVA 2001 *Guntersville Reservoir Final Environmental Impact Statement and Land Management Plan* and located on Goose Pond Island on Guntersville Reservoir. The allocation change was requested by the City of Scottsboro, Alabama, to enable them to develop back-lying properties on the northern and eastern shoreline for residential use, and the southern and western shoreline for a combination of recreation, sensitive resource protection, and residential use. The allocation change was approved by the TVA Board of Directors on November 16, 2004.

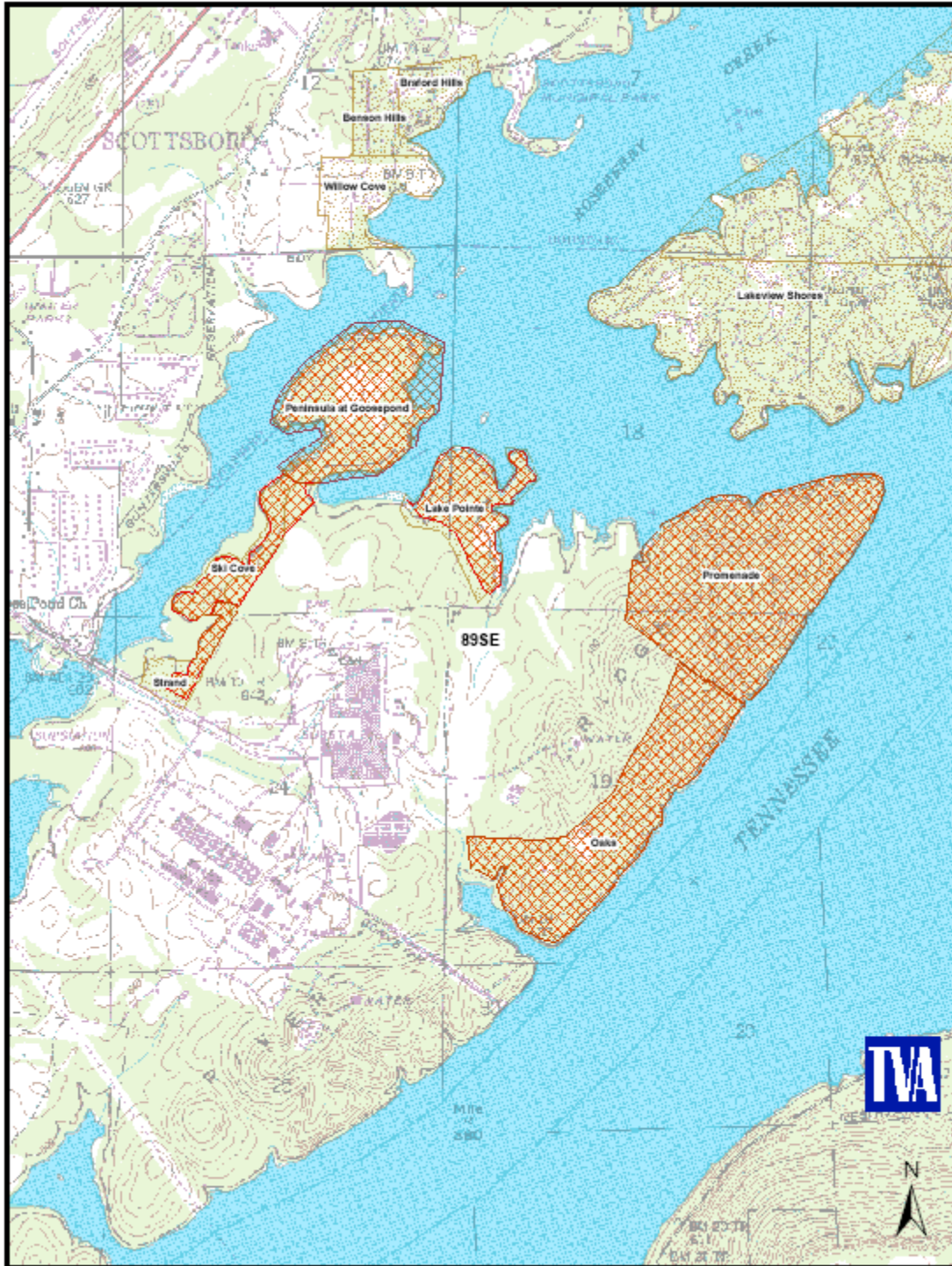


Figure 1. Northern Goose Pond Island Subdivision Developments

In addition to the proposed Promenade and Oaks community boat dock facilities and boat ramp, the scope of this supplemental environmental assessment (EA) includes the individual private water-use facilities associated with the development of the other subdivisions on the northern half of Goose Pond Island identified in Figure 1. The 2004 FEA generically recognized that the development of the island was imminent as a result of the land allocation change. TVA is now receiving applications for Section 26a permits for water-use facilities in these areas. As part of its permit review process, TVA reviews the applications for consistency and compliance with the conceptual plans reviewed in the 2004 FEA. This EA supplements the analyses in the 2004 FEA by further evaluating the potential impacts of the proposed water-use facilities and dredge for the Promenade and Oaks as well as the other subdivision developments, with emphasis on navigation, recreation, cultural resources, visual resources, and socioeconomics. These subdivisions are located on the northern half of Goose Pond Island (specifically the areas including TVA Tracts XGR-108cPT2 and XGR-109fPT2 as shown on Figure 2 of the 2004 FEA) including the Strand, Ski Cove, Peninsula at Goosepond, and Lake Pointe subdivisions.

Public Involvement

The U.S. Army Corps of Engineers issued a Joint Public Notice (PN) 06-91 (Appendix C) with TVA and the Alabama Department of Environmental Management regarding the Promenade and Oaks proposed water-use facilities on August 21, 2006. The PN expired on September 21, 2006. No public comments were received. One agency response to the PN was received from the U.S. Fish and Wildlife Service (USFWS). The design of the community facilities originally proposed in the PN was modified, and the final proposed facilities are described in Appendix A.

USFWS responded to the PN by letter dated September 14, 2006, stating that there are no known sites of threatened or endangered species or critical habitat in the proposed project site or in the vicinity (within a mile radius) of the project footprint. USFWS further stated that based on the best information available to them, requirements under Section 7 of the Endangered Species Act are fulfilled. They also recommended construction-related best management practices (BMPs) for the proposed dredging to further reduce impacts to aquatic biota. They also concurred with upland disposal of the dredge material.

The Alabama State Historic Preservation Officer (AL SHPO) did not respond specifically to the PN. They did respond to TVA regarding archeological survey results for the Promenade and Oaks study area. By letter dated March 29, 2007, the AL SHPO stated that Sites 1Ja1076 and 1Ja211, 1Ja1077, and 1Ja1078 are ineligible for listing on the National Register of Historic Places (NRHP). They also stated in the March 29 letter that Sites 1Ja1044 and 1Ja1075 are potentially eligible for listing on the NRHP. Conservation easements were executed to avoid Sites 1Ja1044 and 1Ja1075 on August 18, 2006, and March 15, 2007, respectively. The AL SHPO responded again by letter dated April 18, 2007, regarding the remaining sites located on the Promenade and Oaks development that Sites 1Ja1038, 1Ja1093, and 1Ja1039 are not eligible for the NRHP.

All agency correspondence regarding the Oaks and Promenade is contained in Appendix D.

Alternatives

Under the No Action Alternative, a permit to build the community facilities, boat ramp and dredge at the Promenade and Oaks subdivisions would not be approved, and construction of the requested facilities and the applicant's needs would not be met. Rights to apply for water-use facilities exist, and, therefore, the applicant could request to build a facility of a different configuration or design. Under the Action Alternative, the 22 double-slip, community water-use facility at the Oaks development and community docks and boat ramp facilities and associated dredge at the Promenade Subdivision would be constructed as detailed in the applicant's revised application (Appendix A). The Oaks community facility would be constructed in Willow Cove, opposite TRM 380.5R. The Promenade community docks facility and boat ramp would be constructed on Roseberry Creek. The Action Alternative also establishes a set of specific permit conditions under which individual private water-use facilities would be approved at the northern Goose Pond Island subdivisions illustrated in Figure 1.

Affected Environment and Evaluation of Impacts

In the 2004 FEA, TVA evaluated the potential environmental impacts associated with the change in land use, which would follow the proposal for land allocation change. This included shoreline impacts associated with residential subdivision development of back-lying properties shown on Figure 1. The community boat dock facilities and boat ramp and associated dredge for the Promenade and Oaks subdivisions have now been proposed, and this supplemental EA evaluates any potential impacts specifically related to the proposed Promenade and Oaks water use facilities.

Dredging in the Promenade area would be by mechanical excavation. Dredged materials would be trucked to the discharge site, stockpiled on Lot 2 of the subdivision, and allowed to air dry prior to spreading out in a thin layer over Lots 1-3 (the marina parking lot area). Stockpiled materials would be placed above the 620-foot contour. The Oaks area dredging would be by a barge-type dredge. Dredged materials would be stockpiled on Lot 214 and allowed to dry prior to spreading out in a thin layer over Lots 213-215. Stockpiled material would be placed above the 620-foot contour. Both dredge operations would be protected from erosion utilizing BMPs to ensure no runoff occurs.

Water quality and aquatic ecology were previously discussed in the 2004 FEA, Section 3.2. Information regarding historical Guntersville Reservoir monitoring data is contained in Appendix F. The aquatic habitat in the near-shore area of the Promenade and Oaks community facilities is a mixture of rubble and cobble, chert, and clay. There would be short-term turbidity associated with the dredging activity that would dissipate as soon as the dredging stopped. The dredge would cause a temporary loss of light penetration to the bottom substrate and a temporary change in bottom substrate and would result in a temporary displacement and loss in the abundance of bottom-dwelling organisms (i.e., loss of biological productivity). The displacement would recover quickly as aquatic organisms recolonize the area. There would be an increase in underwater fisheries and other aquatic habitat in the area resulting from the community docks. The community facilities would provide shade and cover for fish and aquatic invertebrates and would also provide attachment surfaces for algae and small aquatic organisms.

Approximately 400 feet of riprap stabilization would be placed along Lots 4, 5, and 6 of the Promenade (where the community facility would be located) in order to reduce shoreline

erosion from operation of these facilities. With the presence of the proposed dredge and subsequent construction and operation of the community facilities, boat traffic would increase from those utilizing the facilities, and the area would be subject to increased wakes and wave action from boats and other watercraft utilizing this portion of Gunterville Reservoir. The shoreline stabilization would reduce shoreline erosion to insignificant levels.

Also discussed in the 2004 FEA (Section 3.1, Page 8), TVA would manage the residential shoreline in accordance with the requirements of the Shoreline Management Initiative (SMI) (TVA 1999). SMI protection requirements would require an individual Vegetation Management Plan for all new shoreline development including the Promenade and Oaks developments, which would reduce water quality/aquatic ecological impacts, as well as impacts to wildlife and visual resources. TVA would require construction-related BMPs to further reduce potential water quality and aquatic biota impacts to insignificant levels.

Operation of the proposed community facilities could result in the minor degradation of water quality through inadvertent spillage of petroleum products and littering associated with operations and boat moorage. There is no plan to sell fuel at the community facilities. There would be no waste pump-out facility for handling sanitary wastes. If normal good housekeeping procedures are followed at the proposed facilities, adverse water quality impacts from facility operations would be minor.

As discussed in the 2004 FEA (Chapter 3, Page 7), Goose Pond Island does not contain habitat or individuals of any known federally listed or state-listed threatened, endangered, or species of special concern, and, therefore, there would be no impacts from the proposed dredges or community facilities and boat ramp construction. According to more recent information, this conclusion is still true. There are no unique or important aquatic habitats near the proposed project area. The proposed community water-use facilities at the Promenade and Oaks as proposed would not occur within or adjacent to any wetlands.

The proposed dredging and construction of water-use facilities would temporarily impact wildlife habitat in the vicinity. The presence of construction workers and equipment may frighten wildlife in the area during construction of the water-use facilities and residential development. After the work is completed, small mammals and birds should return to the area. Birds could utilize the additional community facility structures for perching and/or nesting areas. Terrestrial and wildlife resources on the island perimeter are not unique to the region, and only small acreage of available terrestrial habitat would be altered for facility construction. There would be insignificant impacts on terrestrial ecology on a cumulative basis.

Impacts to floodplains were previously assessed in the 2004 FEA (Chapter 3, Page 7). There is no loss of flood control functions associated with the proposed Promenade and Oaks community docks or boat ramp facilities. For compliance with Executive Order 11988, water-use facilities are considered repetitive actions in the floodplain that should result in only minor impacts.

Air quality and noise impacts would be short-term and related to the dredge and construction of the new Promenade and Oaks community facilities and boat ramp. The work would be performed during the daylight hours, and construction equipment would be expected to operate within normal ranges for construction equipment. Recreational noise impacts resulting from the additional watercraft should be tolerable to other lakefront

homeowners and recreational users of the Guntersville Reservoir and would be expected to increase on weekends and holidays, particularly during the summer boating season.

Navigation

The Promenade and Oaks subdivision developments have proposed to construct community water-use facilities in waterways that function as commercial and recreational navigational channels. Guntersville Reservoir was impounded by the construction of the Guntersville Lock and Dam and was opened to commercial navigation in 1939. Between 4 and 5 million tons of that traffic moves on Guntersville Reservoir annually. In 2005, about 3 million tons of commodities moved by barge past Goose Pond Island.

The proposed Promenade and Oaks developments as well as the other northern Goose Pond Island developments are located on the right-descending bank of the reservoir between TRMs 379 and 382.5 at the mouth of Roseberry Creek and continue up Roseberry Creek on the right-descending bank about 2 miles. On the main river, the Guntersville pool is about 0.5 mile wide, but is too shallow for commercial navigation for much of that width. The commercially navigable channel is approximately 800 feet wide and follows the right-descending bank, where many of the proposed facilities would be located.

The commercial channel on Guntersville Reservoir and the rest of the Tennessee River waterway is marked by the U.S. Coast Guard (USCG). While there are no shoreline aids to navigation in areas occupied by the Goose Pond Island developments, the commercial channel is delineated by large red and green buoys, and the Lower Section Light and Daymark at TRM 382.5R marks the entrance to the recreation channel on Roseberry Creek. There is an inactive barge terminal located at TRM 380.5R that has two mooring cells.

Roseberry Creek, while not commercially navigable, has a marked recreation channel that is maintained by TVA. It, too, favors the right-descending bank from the mouth of the creek to Mile 1.5, where a number of the proposed facilities would be located, then moves toward the center of the embayment. There are no shoreline aids to navigation on Roseberry Creek, but TVA marks the recreation channel with small red and green buoys.

Under the No Action Alternative, the proposed Promenade and Oaks water-use facilities, as designed, would not be built, and, therefore, there would be no impacts to navigation. Under the Action Alternative, an adverse impact to recreational boating would occur if the community facilities occupy more than one-third of the coves in which they would be placed, inhibiting the safe movement of boats in and out of the coves. An adverse impact to commercial navigation could potentially come from private dock facilities located along the main river. If the facilities were to extend too far into the reservoir toward the commercial channel that might cause commercial towboat pilots to operate in an unsafe manner in order to avoid collision with the dock structures. Tows must be able to operate comfortably within the breadth of the marked navigation channel to accommodate passing tows and emergencies. Likewise, private dock facilities located on Roseberry Creek might adversely impact recreational navigation on Roseberry Creek if they were to extend too close to or into the recreational channel.

On-site inspections by TVA staff established dock length parameters for all lots and facilities at the Promenade, Oaks, and Lake Pointe developments. Navigation specialists found that if the community facilities, fishing piers, and individual docks were constructed

according to the following conditions, there would be no significant impacts to commercial and recreational navigation:

Community facilities at the Promenade and Oaks:

- The applicant would be advised in writing that the facilities would be located adjacent to commercial and recreational navigation channels and may be subject to wave wash from passing vessels and possible collision damage.
- The lakeward extent of Dock A should not exceed 80 feet; Dock B should not exceed 120 feet; Dock C should not exceed 80 feet; and Dock D should not exceed 120 feet from normal summer pool elevation of 595 feet above mean sea level (msl).
- There would be no overnight or permanent mooring at the designated, open day slips or the boat launch courtesy ramp.
- The boardwalk and any other fixed facilities should be a minimum of 1.5 feet above normal summer pool elevation 595 feet msl.

Private docks at the Promenade and the Oaks:

- Docks for the lots would be of a standard design. All docks on the main channel lots would be floating, covered single-slip docks measuring 34 feet long by 28 feet wide. They would be connected to the shoreline by a 16-foot-long walkway for a total lakeward extent of 50 feet. All Roseberry Creek facilities would be floating, covered single-slip docks measuring 20 feet long by 50 feet wide and would abut the shoreline.
- The maximum lakeward extent of the docks for the Oaks Lots 187-191, Lots 195-208, and Lots 222-253 would be no more than 50 feet from the normal summer pool elevation of 595 feet msl.
- The maximum lakeward extent of the docks for the Promenade Lots 29-49, Lots 52-60, and Lots 69 and 70 would be no more than 50 feet from the normal summer pool elevation of 595 feet msl.
- The maximum lakeward extent of the docks for the Promenade Lots 8-24 would be no more than 20 feet, and Lot 7 and Lots 25-28 would be no more than 25 feet from the normal summer pool elevation of 595 feet msl. No permanent mooring would be permitted on the lakeward side of these facilities.
- Facilities on Lots 7-28 would be required to be lit at night with USCG-approved lighting. The light fixtures would be the same at each facility.
- The applicant would be advised in writing that these facilities would front on recreational and commercial navigation channels at a location that makes the facilities and any moored boats vulnerable to wave wash and possible collision damage from passing vessels.

- The applicant would be advised in writing that all floating facilities must be securely anchored to prevent them from floating free during a high-flow or flood event.

Facilities at the Lake Pointe Subdivision:

- The maximum lakeward extent of the private facilities would be no more than the distances specified here from the normal summer pool elevation of 595 feet msl:

Lot 1-131 feet	Lot 2-125 feet	Lot 3-116 feet	Lot 4-76 feet	Lot 5-71 feet	Lot 6-51 feet
Lot 7-42 feet	Lot 8-64 feet	Lot 9-61 feet	Lot 10-105 feet	Lot 11-70 feet	Lot 12-75 feet
Lot 13-40 feet	Lot 14-57 feet	Lot 15-54 feet	Lot 16-51 feet	Lot 17-110 feet	Lot 18-110 feet
Lot 19-64 feet	Lot 20-61 feet	Lot 21-77 feet	Lot 22-70 feet	Lot 23-100 feet	Lot 24-73 feet

- The maximum lakeward extent of the 4-slip facility must be no more than 61 feet from the normal summer pool elevation of 595 feet msl.
- The deck level of all fixed facilities would be at least 1.5 feet above normal summer pool elevation of 595 feet msl.
- The applicant would be notified in writing that the facilities would face a marked navigation channel and may be subject to wave wash and possible collision damage.

TVA reserves the right to erect and maintain navigation aids where necessary. Any and all future docks and dock modifications, including community facilities, at these subdivisions must be reviewed by TVA.

Recreation

Recreation demand is driven by population growth and demographics. The population in the region of Blount, Cullman, DeKalb, Etowah, Jackson, Madison, Marshall, and Morgan counties is projected to continue to grow from a combined total of approximately 882,400 in 2007 to 982,400 in 2017, or around 100,000 additional individuals in 10 years.

Based on the 10-year population projection and the participation rate for motorboating in Alabama of around 25.4 percent, it is anticipated that approximately 25,400 additional individuals will participate in motorboating. A portion of these participants from Madison County (Huntsville area, west) are expected to travel west to Wheeler Reservoir, resulting in perhaps slightly fewer than that total at Guntersville. Only a portion of the 25,400 additional boaters will own their own boats, as many of these participants will boat with family and/or friends, and some of these new boats will be trailer-boats for launch at ramps.

Data from the National Survey on Recreation and the Environment reflects a growth rate of 62 percent for motorboating over the survey period from 1982-1983 to 2000-2001, for an annual average growth of around 2.57 percent per year for that period. However, the national trend for motorboating, in recent years (2001-2004), has risen only slightly (about 1 percent) and declined slightly (about 1 percent) for the southeastern states of Alabama,

Georgia, Mississippi, and Tennessee. The historic growth rates in participation for motorboating have likely peaked. Researchers anticipate recovery rates will be slow with only slight increases in participation rates as the economy recovers, fuel prices moderate, and increasing numbers of retirees (baby boomers) seek more total leisure experiences on larger boats. The impact on motorboating from the 2004-2007 increase in fuel prices has yet to be thoroughly studied, although analysts anticipate an overall reduction in boat sales and boating-related recreation activity.

In general, population increases or decreases and the demographics within that population result in recreation participation rates that drive demand (up or down) and cause shifts in demand for various recreation activities. In the case of local/regional residential developments, the demand for various types of recreation (boating, golfing, walking for pleasure, etc.) is imported as the residential development is constructed (builds out) and residents move in. The demographic profile for individuals that live along reservoirs include boating and fishing in addition to other age-, gender-, and income-related recreational activities.

Under the No Action Alternative, the proposed Promenade and Oaks water-use facilities would not be built as presently designed, and, therefore, there would be no impacts to public recreation. Homeowners in these developments would have reduced opportunities for recreational boating. Under the Action Alternative, there could be direct impacts from the proposed Promenade and Oaks water-use facilities if they were to extend too far out into the commercial navigation channel on the east side of Goose Pond Island. In addition, recreational boating could also be impacted if the community facilities were to occupy more than one-third of the coves in which they would be placed, inhibiting the safe movement of boats in and out of the coves. Likewise, community dock facilities proposed to locate on Roseberry Creek could potentially impact recreational boating if they were to extend too far out into Roseberry Creek. If the community facilities and individual docks were constructed according to the conditions as listed, there would be no conflicts to recreational boating. The addition of new water-use facilities would provide improved year-round boating to the residents of the Promenade and Oaks subdivisions.

A possible indirect impact is an increase in boating congestion in the Goose Pond Island area, resulting in a potential decrease in boating safety. Boating congestion and associated boating safety concerns are a potential indirect impact of the proposed developments. If the community facilities (and individual docks) were constructed as proposed, additional boaters can be expected to use the Roseberry Creek embayment and Guntersville Reservoir. The increase in boating traffic along this portion of Guntersville Reservoir would be seasonal and would increase during the summer months, especially on weekends and holidays. The Tennessee River is roughly 0.5 mile wide at this location, and there is sufficient room to accommodate both commercial and recreational traffic provided boaters operate according to accepted safe boating practices.

The permit applications for the Oaks community access facility (22 double slips); Promenade community access facility (40 slips and boat ramp); Promenade and Oaks individual access facilities (107 facilities); Lake Pointe community facility (four slips plus 24 individual facilities); two Peninsula at Goose Pond community access facilities (25 slips) and Ski Cove/Strand individual water access facilities (7 individual facilities) are consistent with this profile and would result in only a slight increase in the total number of boats stored and staged through the associated waterways to the main body of Guntersville Reservoir.

Issuing the requested permits would support an increase in recreation opportunity for the applicants.

The numbers of personal and community facilities that may be added to the Goose Pond development on Guntersville Reservoir are limited by the available land and shoreline access. The Guntersville Land Plan and EIS (TVA 2001) places limits on land that may be used for shoreline access or commercial recreation and, thus, represents a measure of constraint on shoreline development and the number of resident boats.

The Roseberry Creek embayment and Guntersville pool are wide bodies of water, and boater saturation and/or unsafe conditions for recreational and commercial vessels seem unlikely for the foreseeable future.

Boating safety should always be a concern for the public, particularly since law enforcement agencies responsible for marine safety on Guntersville Reservoir (the TVA Police, the USCG, and the Alabama Marine Police of the Department of Conservation and Natural Resources) are not able to patrol all of the waters in their jurisdictions all the time. These agencies rely heavily on public involvement and reporting.

The State of Alabama has addressed the boating safety issue in the Roberson/Archer Act of 1994. This Act requires that every person over the age of 12 who operates a motorized vessel (including personal watercraft) on the waters of Alabama must first obtain an Alabama Boater Safety Certification or possess comparable USCG certification.

Cultural Resources

An existing programmatic agreement with the AL SHPO regarding all TVA land management plans in the state of Alabama requires TVA to initiate Section 106 consultation at the time when land-disturbing activities were proposed for each of the tracts. By letter to the AL SHPO dated January 20, 2004, TVA agreed to complete Section 106 reviews for any permits or land-use activities that would occur on Goose Pond Island as they were submitted.

In November 2004, TVA received a land-use permit request from the City of Scottsboro for a permanent easement to accommodate a 2,800-foot sewer line across TVA property (0.46 acre on TVA Tract XTGR-176S). The sewer line crossing starts near the Scottsboro Wastewater Treatment Plant and crosses Roseberry Creek to Goose Pond Island. An archaeological survey was conducted on only the sewer line area of potential effect (APE). No historic properties were found. On January 27, 2005, the AL SHPO requested that TVA consider the entire area of upland development on Goose Pond Island a federal undertaking because the uplands could not be developed except for the sewer line. TVA agreed in February 2005 that the entire development of Goose Pond Island should be considered the APE for historic properties and that all future development areas would be surveyed for cultural resources. TVA completed its review of the sewer line crossing with an agreement with the AL SHPO that all lands to be developed would be surveyed for archaeological resources and that all significant sites would be avoided or mitigated. TVA agreed to complete its Section 106 reviews when it received permit requests associated with facility developments.

Archaeological resource surveys were completed on Goose Pond Island within 10 tract areas as shown and delineated on Figure 2. Three different entities surveyed these tracts, and in some cases, there is an overlap of the surveyed areas.

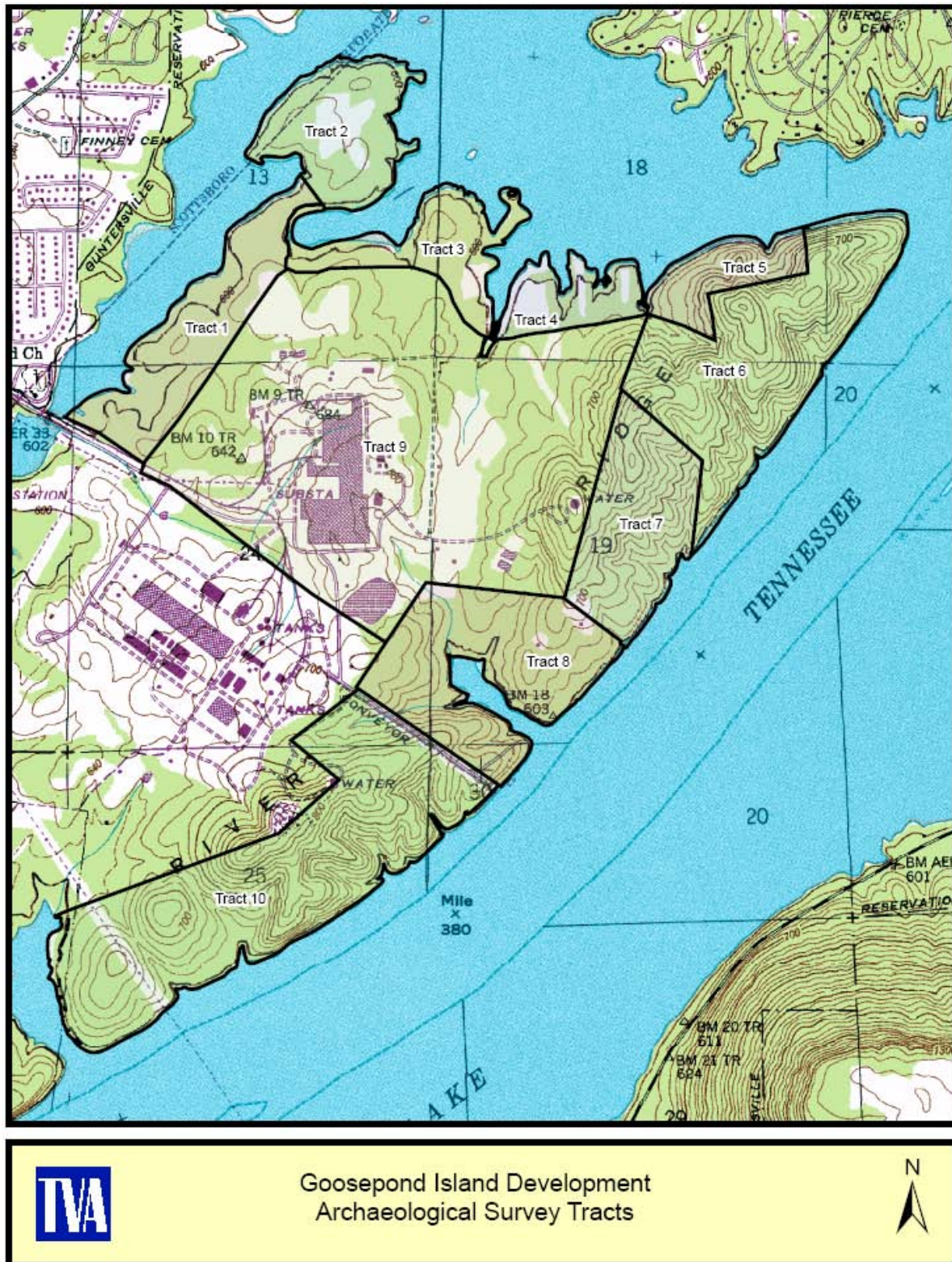


Figure 2. Goose Pond Island – Archaeological Survey Tracts

Two archaeological surveys were completed on Tracts 5, 6, 7, and 8, which compose the current configuration of the Promenade and Oaks Subdivision. Cypress Cultural Consultants (Owens-Battle 2006) identified one archaeological site, 1Ja109, on (Tract 6). Alexander Archaeological Consultants (Alexander et al. 2007) identified eight archaeological sites in this area: Site 1Ja1038 (on Tract 5), Sites 1Ja1039, 1Ja1075, and 1Ja1076 (on Tract 7), and Sites 1Ja1044, 1Ja211, 1Ja1077, and 1Ja1078 (on Tract 8). After consultation with the AL SHPO, two of the nine sites were designated as potentially eligible for the NRHP, 1Ja1044 and 1Ja1075.

Archaeological site 1Ja1044 is located in the Oaks residential area (Tract 8). Based on the results of the Phase I survey (Alexander et al. 2007, Pages 75-78), this was a prehistoric residential site. The material culture recovered suggests that it was occupied during the Middle and Late Woodland period (approximately 50 B.C. to 800 A.D.). Colluvial deposits from an adjacent upland ridge covered and protected this site, leading the researchers to speculate that undisturbed features and deposits were still present. Site 1Ja1075 is also within the Oaks (Tract 7), but is immediately adjacent to the reservoir. The presence of limestone tempered ceramics and small shell-filled features identify it as a Middle Woodland site. Again, Alexander et al. (2007, Page 69) believe that there are intact deposits and features at this site and recommended that it be avoided or further tested. With the exception of 1Ja1044 and 1Ja1075, no additional archaeological testing is necessary in the areas that have been previously surveyed within the current configuration of the Promenade and Oaks subdivisions. (See Mitigation discussion below.)

Site 1Ja1082 (on Tract 4) was determined to be not eligible for the NRHP (by letter from AL SHPO dated March 29, 2007). It is not located in one of the planned subdivisions but is on northern Goose Pond Island. Site 1Ja1099 (Tract 10) was determined to be potentially eligible for the NRHP; however, it is on the southern portion of Goose Pond Island and would not be affected by the proposed action.

The Strand and Ski Cove subdivisions (Tract 1) were surveyed by Alexander Archaeological Consultants (Alexander et al. 2007). Three archaeological sites were identified, 1Ja1034, 1Ja1035, and 1Ja1036. None were designated as eligible for the NRHP. The AL SHPO concurred with this determination in letters dated May 27, 2005, and March 29, 2007. No additional archaeological testing is necessary within this area.

The Peninsula at Goose Pond (Tract 2) was surveyed by the Office of Archaeological Research at the University of Alabama (Wilkins et al. 2004). This pedestrian survey identified four archaeological sites, 1Ja1040, 1Ja1041, 1Ja1042, and 1Ja1043. None were deemed to have sufficient integrity and research potential for listing on the NRHP. The AL SHPO concurred with this determination in a letter to T. Mandell Tillman (developer) dated June 17, 2005.

The Lake Pointe Subdivision (Tract 3) was surveyed by Alexander Archaeological Consultants (Alexander et al. 2007). One site, 1Ja1074, was located in this subdivision. This site was identified as a late 19th to early 20th century historic residence. "A house is indicated on the 1936 quadrangle map... for this area, the house is missing from the 1950... version of the map" (Alexander et. al 2007, Page 52). The only aboveground remains are those of a fallen chimney, foundation, cistern, and well. The majority of artifacts recovered were historic ceramics and metal objects associated with this residence. In early drafts of the report, the NRHP status of this site was confused. The text suggested that the site was not eligible, but official site forms indicated that it was eligible for the

NRHP. The final report indicates that it was potentially eligible for the NRHP and should be avoided or further evaluated (Alexander et al. 2007). This confusion likely contributed to the accidental destruction of the site sometime before October 2005. The current developer has funded an evaluation of the remains of this site (Clouse 2005). After consultations with the AL SHPO, a historical document study of the occupants of this site was conducted and submitted to the AL SHPO as mitigation of the adverse effect (Clouse 2007). The AL SHPO responded by letter dated March 29, 2007, that 1Ja1074 (Tract 3) is potentially eligible for the NRHP. The AL SHPO stated that the University of Alabama was then conducting documentary research on Site 1Ja1074, which was inadvertently destroyed by the project, and the study would serve as mitigation for the site. The AL SHPO responded by letter dated April 18, 2007, that mitigation for Site 1Ja1074 is complete and project activities could proceed at its former location.

Based on the results of these archaeological surveys, as well as the mitigation measures that have been completed, TVA has concluded that the Action Alternative would not adversely affect sites listed on or eligible for listing on the NRHP. Although some archaeological sites would be affected by future construction, these sites were determined not eligible for listing on the NRHP. No historic structures occur on or near the northern Goose Pond Island tracts. No sites eligible or potentially eligible for listing on the NRHP would be affected and overall impacts to cultural resources would be insignificant.

Expansion of new subdivision development south into archeological survey Tract 10 would require additional environmental review and evaluation of this area and is outside the scope of this SEA.

Visual Resources

The existing landscape character and scenic value were previously discussed in Section 3.6 of the 2004 FEA. The scenic attractiveness is common to the area with occasionally appearing areas of distinctive scenic attractiveness, and the scenic integrity is moderate to high.

Under the No Action Alternative, TVA would not approve permit applications for the Promenade and Oaks community water-use facilities and boat ramp. However, water access rights would remain, which would allow landowners to request permits for facilities of a different design. Under the Action Alternative, TVA would approve the request for the Promenade and Oaks community water-use facilities and boat ramp, as well as requests for individual private water-use facilities on the northern portion of Goose Pond Island provided they meet special permit conditions listed in this SEA.

The location of the proposed work is currently being transformed from a rural river setting to a developed residential river setting with the construction of water-use facilities and housing. Work on the proposed Promenade and Oaks water-use facilities would have short-term impacts on aesthetics of the site caused by the appearance of construction workers and equipment. The construction work would be temporary; however, the presence of the new facilities would be a long-term visible impact and may be viewed as obtrusive to those adjacent landowners or lake users who prefer the natural shoreline setting currently visible.

The proposed facilities and future requests for water-use facilities fronting the Oaks and the Promenade would be visible to recreational lake users and shoreline and near-shore residents from distances into the middleground (0.5 mile to 4 miles from the observer)

viewing distance along the main reservoir channel. From these vantage points, objects such as water-use facilities are typically distinguishable, but their details are weak and often appear to merge into larger patterns. Duration of views would vary from these positions, but would generally be brief. Section 26a requests associated with residential developments fronting the Oaks and the Promenade would not require design measures to prevent or reduce potential impacts to the scenic resources as described in the 2004 FEA.

Subsequent water-use facilities that may be requested along portions of the shoreline fronting XGR-108cPT2 would be visible to recreational lake users and shoreline and near-shore residents from the foreground (up to 0.5 mile from the observer) viewing distance and in some positions into the middleground (0.5 mile to 4 miles from the observer) viewing distance. Views of the proposed facilities would generally be limited to positions within the Roseberry Creek embayment. The exterior construction and building envelope of individual and community water-use facilities that front XGR-108, in areas such as the Strand, Ski Cove, the Peninsula at Goosepond, and Lake Pointe, would be planned to reduce the potential impacts to scenic resources, as described in Section 3.6 of the 2004 FEA. This would include requirements that all water-use facilities be designed and constructed to remain open on all sides between structural upright supports and that the facilities be designed and constructed using materials and finishes that are analogous in color to the surrounding environment and the back-lying shoreline landscape. Additionally, site lighting associated with these facilities would be planned to reduce the potential impacts associated with a discernable increase in night sky brightness and the production of waste light. This would include requirements that all site lighting be equipped with full cutoff features that limit the amount of waste light produced at a vertical angle of 80 degrees above the lowest light-emitting portion of the luminaries.

Associated actions included in Section 26a requests for Tracts XGR-108cPT2 and XGR-109fPT2 may include shoreline stabilization, vegetation management, requests for the construction of ancillary facilities, dredges, etc., which would impact scenic resources. To reduce these potentially adverse impacts, all applicants would be required to adhere to TVA §1304.208, §1304.203, §1304.205, and §1304.207.

The residential development of northern Goose Pond Island would result in the construction of additional water use facilities along the northern and eastern shoreline of the island. The cumulative impact of the addition of these facilities was addressed, in concept, in Section 3.6 of the 2004 FEA. The incremental addition of the proposed water-use facilities would result in discernable increases in recreational reservoir traffic in the vicinity of TRM 382.6. However, the discordant views associated with increases in recreational reservoir traffic would reflect overall usage patterns for this segment of Gunter'sville Reservoir and would vary seasonally, with peak use anticipated during the months of June, July, and August. Additionally, visual discord would be probable during the construction of the proposed water-use facilities and associated Section 26a requests, but would be temporary and remain confined to the construction period. With adherence to the special permit conditions listed in this SEA, overall impacts to visual resources would be insignificant.

Socioeconomics

The Promenade and Oaks subdivisions are located on the east side of Goose Pond Island on Gunter'sville Reservoir in Jackson County, Alabama, close to Scottsboro. Scottsboro is a city with an estimated population of 14,840 in the year 2005. The total county population as of 2006 is estimated to be 53,745. Per capita personal income in Jackson County in 2005 was \$24,812, below the state average of \$29,623 and about 72 percent of the

national average of \$34,471. The county is more dependent on manufacturing and on farming than the state as a whole or the nation, with about 6.2 percent of its employment in farming and 26.3 in manufacturing. In comparison, the state averages 2.1 percent in farming and 12.2 percent in manufacturing, and the nation averages 1.7 percent in farming and 8.5 percent in manufacturing.

Minority population in Jackson County, as of the 2000 Census, is 8.8 percent of the total population, while in Scottsboro, it is slightly higher at 9.7 percent. These shares are much smaller than the state at 29.7 percent and the nation at 30.9 percent. The proposed development would be in Block Group 4 in Census Tract 9509. Minority population of this block group is 4.6 percent of the total. The poverty level in Jackson County is 13.7 percent of the population, while the rate in Scottsboro is slightly higher at 14.3 percent. Both of these are somewhat lower than the state average of 16.1, but slightly higher than the national average of 12.4. In Block Group 4, Census Tract 9509, where the proposed development would occur, the poverty level is 5.8 percent.

The proposed community facilities would be for the private use of residents of the Promenade and Oaks subdivisions and, therefore, would have little or no impact on the population of the area or on usage of the reservoir by nonresidents. It could have a small positive impact on property values in the portion of the subdivision that would be served by enhancing lake benefits to the property. No overall noticeable impacts to employment or income in the area are likely. During the dredging and construction of the Promenade and Oaks facilities, there would be a small benefit to contractors performing the work, and they would likely spend money in the area while working there. Impacts to minority or low-income populations are also unlikely. The impacts of individual private water-use facilities at the northern Goose Pond Island subdivisions would be similar.

Cumulative Impacts

An assessment of cumulative impacts requires consideration of how actions by others (including those actions completely unrelated to the action), as well as future actions by TVA and USACE, have and will affect the same resources. For the purpose of cumulative impact assessment, the spatial boundary has been broadened to consider effects of the proposed work and its effects to others. In this case, reasonably foreseeable actions include:

- Recurrence of the need to dredge again due to siltation at the site
- Increased real estate values for the applicant/future lot owners because of moorage and navigational improvements
- Improved year-round recreational boating based upon lake access
- Additional residential and associated water use facility development

Future associated work that may be proposed in the vicinity of the site can be identified as cumulative or secondary impacts; however, determining the magnitude and significance of cumulative effects, modifying proposals to avoid, minimize or mitigate significant cumulative effects, and planning for monitoring and adaptive management would have to be addressed on a case-by-case basis. TVA has addressed the likely cumulative impacts in its programmatic Shoreline Management Initiative EIS (TVA 1996) and, more specifically for

the project area, in its Guntersville Reservoir Land Use Plan EIS (TVA 2001) and the 2004 FEA. These documents establish permit requirements to minimize cumulative impacts. With adherence to these permit requirements, as well as the special permit conditions identified in this SEA, the proposed action is not anticipated to have a substantial cumulative effect upon the existing environment, and the sustainability of important resources would not be adversely affected.

Promenade and Oaks Mitigation Measures

The owners of the Promenade and Oaks residential developments elected to avoid archaeological Sites 1Ja1044 and 1Ja1075 and not fund Phase II testing of these sites to determine their eligibility for listing on the NRHP. They have elected to not develop both site areas and have placed them in conservation easements with the Alabama Historical Commission (see Appendix E).

The University of Alabama conducted documentary research on Site 1Ja1074, which was inadvertently destroyed by the Lake Pointe residential development, and the study would serve as mitigation for the site. The AL SHPO responded by letter dated April 18, 2007, that mitigation for Site 1Ja1074 is complete.

No further mitigation is necessary to minimize the environmental impacts of these developments.

Preferred Alternative

The preferred alternative is to issue the permit approval for the Oaks and Promenade community facilities and boat ramp and to grant requests for individual private water-use facilities on the northern portion of Goose Pond Island provided they comply with the special permit conditions listed in this SEA.

Preparers

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Mark Carnes – U.S. Army Corps of Engineers
Jim Eblen – Socioeconomics
Jerry Fouse – Recreation
Carolyn Korroa – Navigation
Clint Jones – Aquatic Biology
Mary McBryar – Environmental Scientist
Tom Maher - Cultural Resources
Alisha Mulkey – Guntersville Watershed Team
Charles Nicholson - NEPA Policy Compliance
Ken Parr – NEPA Compliance and Document Preparation
Travis Perry – Guntersville Watershed Team
Jon Riley – Visual

Agencies and Others Consulted

Alabama State Historic Preservation Officer

U.S. Army Corps of Engineers
U.S. Fish and Wildlife Service

References

- Alexander, L. S., et al. 2007. *Phase I Archaeological Surveys of Goose Pond Island, Jackson County, Alabama, Tracts 1, 3, 4, 5, 7, 8, and 10*. Alexander Archaeological Consultants Inc.
- Categorical Exclusion Checklist (CEC) 14048 for the Lake Pointe Subdivision (one community and 25 individual slips), CEC 13825 (community slips), and CEC 13609 (107 individual facilities) for the Promenade and the Oaks facilities have previously been prepared. CEC 8598 was prepared to document the environmental review of a proposed sewer line easement. CECs have been previously completed in response to Section 26a requests for the Peninsula at Goosepond Subdivision. These include CECs 10814 (for community slips) and 12363 (stabilization) and 15168 (Lot 1), 13108 (Lot 3), 12615 (Lot 4), 12625 (Lot 13), 13606 (Lot 15), 12794 (Lot 17), 15665 (Lot 20), 12617 (Lot 23), 13782 (Lot 26), 13780 (Lot 31), and 15407 (Lot 41) for individual private facilities. CECs 14036 (Lot 3), 12805 (Lot 12), and 12728 (Lot 13) have been completed for Ski Cove individual permits.
- Clouse, R. A. 2005. *A Condition Assessment of Site 1Ja1074, the Goose Pond Island Site*. University of Alabama, Office of Archaeological Research.
- Clouse, R. A. 2007. *Property Owners Research in Association with Site 1Ja1074, the Goose Pond Island Site, Jackson County, Alabama*. University of Alabama, Office of Archaeological Research.
- Tennessee Valley Authority. 1999. Final Environmental Impact Statement, *Shoreline Management Initiative (SMI): An Assessment of Residential Shoreline Development Impacts in the Tennessee Valley*.
- . 2001. *Guntersville Reservoir Final Environmental Impact Statement and Land Management Plan*.
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- Owens-Battle, D. 2006. *An Archaeological Survey of Approximately 150 Acres Proposed for Residential Development on Goose Pond Island, Jackson County, Alabama*. Cypress Cultural Consultants.
- Wilkins J. C., et al. 2004. *A Cultural Resources Survey of a Proposed Residential Area on Gosse Pond Island Near Scottsboro in Jackson County, Alabama*. University of Alabama, Office of Archaeological Research.

**NORTHERN GOOSE POND ISLAND RESIDENTIAL DEVELOPMENT
JACKSON COUNTY, ALABAMA**

SPECIAL PERMIT CONDITIONS

Promenade and Oaks Community Facilities and Ramp

Community facilities at the Promenade and Oaks:

- The lakeward extent of Dock A should not exceed 80 feet; Dock B should not exceed 120 feet; Dock C should not exceed 80 feet; and Dock D should not exceed 120 feet from normal summer pool elevation of 595 feet above mean sea level (msl).
- There would be no overnight or permanent mooring at the designated, open day slips or the boat launch courtesy ramp.

Other Residential Development and Individual Water-Use Facilities

- Water-use facilities requested that would front XGR-108cPT2 would be designed and constructed to remain open on all sides between structural upright supports. The water-use facilities would be designed and constructed using materials that are analogous in color to the surrounding environment and the back-lying shoreline landscape.
- All site lighting associated with water-use facilities requested that would front XGR-108cPT2 would be equipped with full cutoff features that limit the amount of waste light produced at a vertical angle of 80 degrees above the lowest light-emitting portion of the luminaries.

Private docks at the Promenade and the Oaks:

- Docks for the lots would be of a standard design. All main channel lots would be floating, covered single-slip docks measuring 34 feet long by 28 feet wide. They would be connected to the shoreline by a 16-foot-long walkway for a total lakeward extent of 50 feet. All Roseberry Creek facilities would be floating, covered single-slip docks measuring 20 feet long by 50 feet wide and would abut the shoreline.
- The maximum lakeward extent of the docks for the Oaks Lots 187-191, Lots 195-208, and Lots 222-253 would be no more than 50 feet from the normal summer pool elevation of 595 feet msl.
- The maximum lakeward extent of the docks for the Promenade Lots 29-49, Lots 52-60, and Lots 69 and 70 would be no more than 50 feet from the normal summer pool elevation of 595 feet msl.
- The maximum lakeward extent of the docks for the Promenade Lots 8-24 would be no more than 20 feet, and Lot 7 and Lots 25-28 would be no more than 25 feet from

the normal summer pool elevation of 595 feet msl. No permanent mooring would be permitted on the outside of these facilities.

- Facilities on Lots 7-28 would be required to be lit at night with USCG-approved lighting. The light fixtures would be the same at each facility.

Facilities at the Lake Pointe Subdivision:

- The maximum lakeward extent of the private facilities would be no more than the distances specified here from the normal summer pool elevation of 595 feet msl:

Lot 1-131 feet	Lot 2-125 feet	Lot 3-116 feet	Lot 4-76 feet	Lot 5-71 feet	Lot 6-51 feet
Lot 7-42 feet	Lot 8-64 feet	Lot 9-61 feet	Lot 10-105 feet	Lot 11-70 feet	Lot 12-75 feet
Lot 13-40 feet	Lot 14-57 feet	Lot 15-54 feet	Lot 16-51 feet	Lot 17-110 feet	Lot 18-110 feet
Lot 19-64 feet	Lot 20-61 feet	Lot 21-77 feet	Lot 22-70 feet	Lot 23-100 feet	Lot 24-73 feet

- The maximum lakeward extent of the 4-slip facility must be no more than 61 feet from the normal summer pool elevation of 595 feet msl.